

۱۵

$$y = \sqrt{nf(n)}$$

$$nf(n) > 0$$

لیست برای

۱۱, ۲۵

$$D_F = [-2, 5] - \{ [-2, -5) \cup (0, 2] \}$$

$$D_f = [-5, 0] \cup [2, 5]$$

۱۶

$$y = \sqrt{\frac{-n}{f(n)}} \Rightarrow \frac{-n}{f(n)} > 0$$

$$\Rightarrow \frac{-n}{f(n)} > 0$$

$$D_f = (-\infty, 2) - \{0\} \rightarrow \text{اعداد صحیح}$$

$$f(n) \rightarrow [-5, -2) \cup (2, 5]$$

اعداد صحیح

$$f(r) = r^2 - 7 + r \Rightarrow -f(r) = r \Rightarrow f(r) = r$$

$$f(-r) = f(-r) - 7f(r) = (-r)^2 - (-7) + r = r^2 + 7 + r = r$$

$$f(f(2)) + f(f(1)) = f(2) + f(1) = 7 + 2 = 9$$

$$f(n) = \begin{cases} n^2 - \sqrt{n^2} & ; n > 2 \\ 2n + 2 & ; n \leq 2 \end{cases}$$

$$f(n-1) - f(n) = 7n + 2 \Rightarrow a(n-1)^2 - b(n-1) + 2 - (an^2 - bn + 2) = 7n + 2$$

$$7n + 2$$

$$\Rightarrow an^2 - 2an + a - bn + b + 2n = 7n + 2 \Rightarrow -2an + \frac{a}{2} + b = 7n + 2$$

$$\left. \begin{matrix} -2a = 7 \\ a + b = 2 \end{matrix} \right\} \Rightarrow b - a = 1 \Rightarrow a = -1$$

۱۷

$$f(n) = \frac{n^2 + 6n + 2}{n^2 + 6n + 2} \Rightarrow f(\sqrt{n} - 2) = \frac{(\sqrt{n} - 2)^2 + 6(\sqrt{n} - 2) + 2}{(\sqrt{n} - 2)^2 + 6(\sqrt{n} - 2) + 2}$$

$$f(\sqrt{n} - 2) = 2$$

$$f(n) = \frac{(n+2)^2 + 1}{(n+2)^2 + 2} \rightarrow f(\sqrt{n} - 2) = \frac{2}{\sqrt{n}}$$

$$f\left(n - \frac{1}{n}\right) = \frac{n^f + 1}{n^f}$$

① -v

$$\left(-\frac{1}{n} - \frac{1}{n}\right)n \Rightarrow n^2 + \frac{1}{n} - 1 = 0 \Rightarrow n^2 - \frac{1}{n} + 1$$

$$f(n) = n^2 + 1 \quad f(-1) = 11 \quad ?$$

$$\text{ان} \quad \frac{f}{g} = \left\{ (2, 0), \left(1, -\frac{f}{\sqrt{n}}\right), \left(0, \frac{f}{\sqrt{n}}\right) \right\}$$

-1  
1, 100

$$\rightarrow \frac{g}{f} = \left\{ \left(1, \frac{\sqrt{n}}{-f}\right), \left(0, \frac{\sqrt{n}}{f}\right) \right\}$$

$$f(n) = \left\{ (2, 0), (1, -1), (0, 2), (1, 1) \right\}$$

$$g(n) = \left\{ (2, \sqrt{n}), (1, \sqrt{n}), (0, 2), \left(\frac{1}{2}, -1\right) \right\}$$

$$f(n) = \left\{ (2, 1), (3, 4), (-5, 2), (1, -1) \right\}$$

-9  
0

$$\text{ان} \quad 2f(n) = \left\{ (2, 2), (3, 8), (-10, 4), (1, 2) \right\}$$

$$\rightarrow f(n) + 1 = \left\{ (2, 3), (3, 5), (-5, 3), (1, 0) \right\}$$

$$\rightarrow 2f(n) + 1 = \left\{ (2, 5), (3, 9), (-10, 5), (1, 3) \right\}$$

$$\rightarrow f(n) = \left\{ (2, 1), (3, 4), (-5, 2), \left(\frac{1}{2}, -1\right) \right\}$$

$$f(n) = \left\{ (2, 2), (1, 2), (3, 2), (2, 1) \right\}$$

$$g(n) = \left\{ (1, 0), (2, 1), (-1, 2), (-2, -2), \left(-\frac{1}{2}, -1\right) \right\}$$

$$\text{ان} \quad f - g = \left\{ (2, 2), (1, 2), (3, 2) \right\}$$

✓ 2

$$\rightarrow \frac{2f}{g} = \left\{ (2, 2), (1, 2), (3, 2) \right\}$$

شريف  
شبه  
بد غلط